

# DIN EN ISO 20337:2020-01 (E)

Fibre-reinforced plastic compo sites - Shear test method using a shear frame for the determination of the in-pl ane shear stress/shear strain response and shear modulus (ISO 20337:2018)

---

| <b>Contents</b>                                       | <b>Page</b> |
|---|-------------|
| <b>European foreword</b> .....                        | <b>3</b>    |
| <b>Foreword</b> .....                                 | <b>4</b>    |
| <b>Introduction</b> .....                             | <b>5</b>    |
| <b>1 Scope</b> .....                                  | <b>6</b>    |
| <b>2 Normative references</b> .....                   | <b>6</b>    |
| <b>3 Terms and definitions</b> .....                  | <b>6</b>    |
| <b>4 Principle</b> .....                              | <b>7</b>    |
| <b>5 Test apparatus</b> .....                         | <b>8</b>    |
| 5.1 Tensile test machine.....                         | 8           |
| 5.1.1 General.....                                    | 8           |
| 5.1.2 Test speeds.....                                | 8           |
| 5.1.3 Force indicator.....                            | 8           |
| 5.2 Shear frame.....                                  | 8           |
| 5.3 Strain measurement.....                           | 10          |
| 5.4 Micrometer.....                                   | 11          |
| <b>6 Test specimens</b> .....                         | <b>11</b>   |
| 6.1 Shape and dimensions.....                         | 11          |
| 6.2 Preparation of test specimens.....                | 12          |
| 6.3 Inspection of the test specimens.....             | 13          |
| 6.4 Number of test specimens.....                     | 13          |
| 6.5 Conditioning of test specimens.....               | 13          |
| <b>7 Procedure</b> .....                              | <b>13</b>   |
| 7.1 Test atmosphere.....                              | 13          |
| 7.2 Determination of the test specimen thickness..... | 13          |
| 7.3 Test speed.....                                   | 13          |
| 7.4 Data collection.....                              | 13          |
| 7.5 Test termination.....                             | 13          |
| 7.6 Failure mode.....                                 | 14          |
| <b>8 Calculation and expression of results</b> .....  | <b>15</b>   |
| <b>9 Test report</b> .....                            | <b>16</b>   |
| <b>Bibliography</b> .....                             | <b>17</b>   |